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TITLE: WAVEGUIDE STRUCTURE AND METHOD OF FORMING THE WAVEGUIDE STRUCTURE

THE COMMISSIONER FOR PATENTS
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AMENDED CLAIMS

1. (currently amended) A method for forming a high-optical-confinement waveguide structure, the method comprising:

- forming a silicon-based waveguide on a substrate by depositing a waveguide layer comprising amorphous silicon onto the substrate by chemical vapour deposition (CVD);

wherein the waveguide layer has a refractive index which is greater than a refractive index of the substrate.

2. (original) A method as claimed in claim 1, further comprising a step of depositing a first layer of a first material on a wafer so as to form the substrate prior to depositing the waveguide layer.

3. (original) A method as claimed in claim 2, wherein the wafer comprises a silicon wafer.

4. (currently amended) A method as claimed in ~~either claim 2 or 3~~ claim 2, wherein the first layer is silica-based.

5. (currently amended) A method as claimed in ~~any one of the preceding claims~~ claim 1, wherein the step of forming the silicon-based waveguide further comprises etching the deposited waveguide layer.